

BEHIND *the* STEEL

60" BW Triple 500HP VFD Alignment-Free Belt Drive

This **Alignment-Free Belt Drive** is constructed with heavy-duty structural steel, available in any desired HP and belt width, and built *exactly* to customer specifications. It was designed to move 740 feet per minute (fpm).

BENEFITS:

- Eliminates catastrophic immediate failure of input if not aligned properly
- Eliminates rapid wear of components if output is not aligned properly
- Most energy efficient of all drive types — none wasted in transmission
- Reduces need for spare component inventory by using common components
- Bolt together construction allows for ease of installation
- Pairing with a VFD starter increases longevity

» Motor

This drive is equipped with three 500HP inverter-duty constant torque motors designed specifically for use with a VFD starter. This totally enclosed fan-controlled motor is 480VAC with 1800RPM.

» Drive Frame

The drive frame is built from heavy-duty steel that can withstand the most demanding underground and above-ground bulk material handling operations. This unit is equipped with heavy-duty torque arm mounting assemblies, heavy-duty detachable low speed coupling guards, and extended shaft guards for safety. A 16" structural steel beam provides clearance from the top of the concrete to the bottom of the drive frame for ease of clean up.

» Reducer

The Hansen UniMiner Z Series reducer is specifically designed for the mining industry and offers versatility for different mounting positions. With a 'flippable' housing and horizontal split line, it is the ideal solution for alignment-free drive packages. This unit includes three Hansen model ZHRH3 reducers with high speed shaft fans and lanterns for T10 high speed couplings.

» Motor Electrical Box

The motor electrical box added to this unit is ready to plug into a customer's power center and can be controlled by a sophisticated triple 500HP AC belt controller. The VFD starter used with this conveyor was made specifically for use with three 500HP AC inverter duty motors.

» Pulleys

This unit is constructed with two 44"x69" flat-face mine-duty pulleys and added 1" MSHA-approved ceramic lagging. Ceramic lagging, used for larger torque conveyors, allows for bi-directional pulley rotation, helps shed water from the belt, and prevents belt slippage.

» Bearings

Both pulleys are equipped with a 14" shaft turned down to 12 1/2" through the bearing journals and fitted with SDAF 12 1/2" 4-bolt, split-house bearings.

» Low Speed Coupling

Used when a rigid connection is required between the low speed shaft of a gearbox and the head shaft of a conveyor pulley. When sized properly, a low speed rigid coupling will carry the application torque and weight of the gearbox. A rigid coupling consists of male and female hubs in a bolt-together design that is user-friendly to the operator. This unit is fitted with a Martin FARR7E and is bored to interference fit.

» High Speed Coupling

This drive is equipped with Dodge Grid-Lign couplings. This type of closed coupling has tapered grid style hubs, grids, and covers that are interchangeable with other industry standard tapered grid couplings. The vertically or horizontally split cover allows for grid replacement without movement of the connected equipment.



WESTRIVERCONVEYORS.COM